

*Please provide the following information, and submit to the NOAA DM Plan Repository.*

**Reference to Master DM Plan (if applicable)**

*As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.*

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

**1. General Description of Data to be Managed****1.1. Name of the Data, data collection Project, or data-producing Program:**

Bering-Okhotsk Seal Survey (BOSS) On-Effort Flight Tracks (2012-13)

**1.2. Summary description of the data:**

Aerial surveys were flown during the spring of 2012 and 2013 as part of the Bering Okhotsk Seal Surveys (BOSS) project to gather data on distribution and abundance of ice-associated seals in the eastern Bering Sea. The distributions of these seals are broad and patchy, resulting in surveys that cover large areas and encounter rapidly changing environmental conditions. Surveys were flown using a fixed-wing aircraft with a paired system of digital cameras and thermal imagers operated by observers and mounted in the belly port. Flight tracks were recorded with an attitude and heading reference system (AHRS) that also recorded location information at one second intervals. A secondary flight track was recorded with a GPS which was used to supplement location information when there was a glitch with the AHRS. BOSS on-effort flight tracks were used to calculate total distance and area flown for estimating seal abundance, in addition to georeferencing digital and thermal imagery collected in flight. On-effort flight tracks (survey effort) were initially determined by the observer based on environmental conditions and later refined based on aircraft attitude and imagery review. The spatial data are provided in the geographic (epsg:4326) coordinate reference system.

**1.3. Is this a one-time data collection, or an ongoing series of measurements?**

One-time data collection

**1.4. Actual or planned temporal coverage of the data:**

2012-04-06 to 2012-05-23, 2013-04-04 to 2013-05-09

**1.5. Actual or planned geographic coverage of the data:**

W: -180, E: -155, N: 66, S: 55

**1.6. Type(s) of data:**

*(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)*  
Map (digital)

**1.7. Data collection method(s):**

*(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)*

Instrument: Global Positioning System, Altitude Heading Reference System

Platform: Airplane

Physical Collection / Fishing Gear: N/A

**1.8. If data are from a NOAA Observing System of Record, indicate name of system:****1.8.1. If data are from another observing system, please specify:****2. Point of Contact for this Data Management Plan (author or maintainer)****2.1. Name:**

Erin Richmond

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:****2.4. E-mail address:**

erin.richmond@noaa.gov

**2.5. Phone number:****3. Responsible Party for Data Management**

*Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.*

**3.1. Name:**

Erin Richmond

**3.2. Title:**

Data Steward

**4. Resources**

*Programs must identify resources within their own budget for managing the data they produce.*

**4.1. Have resources for management of these data been identified?**

No

**4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):**

Unknown

## 5. Data Lineage and Quality

*NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.*

### 5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

*(describe or provide URL of description):*

Lineage Statement:

BOSS on-effort flight tracks were recorded with an AHRS and a secondary flight track was recorded with a GPS that was used to supplement location (lat/long) information when there was a glitch in the AHRS data recording. Supplemental location information was interpolated. Post-processing of BOSS on-effort flight tracks was derived from a combination of inflight observations (based on environmental conditions) and later refined by reviewing aircraft attitude and imagery. Any flight track segments that were determined to be “off-effort” were not used to calculate total distance/area flown for seal abundance estimates and were not included in the database.

**5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:**

### 5.2. Quality control procedures employed (describe or provide URL of description):

Flight tracks were collected in the field and post-processed to determine accurate survey effort in order to calculate the total distance and area covered. Two sets of flight tracks were collected to ensure location accuracy. Feedback from aerial survey observers informs the evaluation of what is considered to be “on-effort”, in addition to aircraft attitude and imagery review.

## 6. Data Documentation

*The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.*

### 6.1. Does metadata comply with EDMC Data Documentation directive?

Yes

**6.1.1. If metadata are non-existent or non-compliant, please explain:**

### 6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

**6.2.1. If service is needed for metadata hosting, please indicate:**

**6.3. URL of metadata folder or data catalog, if known:**

<https://www.fisheries.noaa.gov/inport/item/28315>

**6.4. Process for producing and maintaining metadata**

*(describe or provide URL of description):*

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: [https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC\\_PD-Data\\_Documentation\\_v1.pdf](https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf)

**7. Data Access**

*NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.*

**7.1. Do these data comply with the Data Access directive?**

No

**7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?**

No

**7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:**

The data set is in the process of being archived with the NOAA National Centers for Environmental Information. Once the archival process is complete and verified, the data set will be publicly available.

**7.2. Name of organization of facility providing data access:**

Alaska Fisheries Science Center (AFSC)

**7.2.1. If data hosting service is needed, please indicate:**

not needed; planned for NCEI-MD

**7.2.2. URL of data access service, if known:**

[https://access.afsc.noaa.gov/data-zips/28315\\_BOSS\\_OnEffortFlightTracks.zip](https://access.afsc.noaa.gov/data-zips/28315_BOSS_OnEffortFlightTracks.zip)

**7.3. Data access methods or services offered:**

The data set is in the process of being archived with the NOAA National Centers for Environmental Information. Once the archival process is complete and verified, the data set will be publicly available.

**7.4. Approximate delay between data collection and dissemination:**

unknown

**7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:**

data were not automatically processed

**8. Data Preservation and Protection**

*The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.*

**8.1. Actual or planned long-term data archive location:**

*(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)*

NCEI-MD

**8.1.1. If World Data Center or Other, specify:**

**8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:**

**8.2. Data storage facility prior to being sent to an archive facility (if any):**

Alaska Fisheries Science Center - Seattle, WA

**8.3. Approximate delay between data collection and submission to an archive facility:**

unknown

**8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?**

*Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection*

IT Security and Contingency Plan for the system establishes procedures and applies to the functions, operations, and resources necessary to recover and restore data as hosted in the Western Regional Support Center in Seattle, Washington, following a disruption.

**9. Additional Line Office or Staff Office Questions**

*Line and Staff Offices may extend this template by inserting additional questions in this section.*